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XVI.—*Notes on the Birds observed on Waigats, Novaya Zemlya, and Dolgoi Island, in 1897.* By HENRY J. PEARSON.

THE north-east corner of European Russia, lying between the River Petchora and the Yugor Straits, called the Great Tundra, is a country of which so little is known ornithologically that I determined to visit it last summer. The parts specially intended for exploration were the valleys drained by the Karataikha and Khapidira Rivers, which flow into Khapidirsh Bay. The charts represent the whole of this bay and adjoining shores as being bordered by large mud-flats, which are bare at low tide; and, according to the few available descriptions of the country near the coast, it consists of extensive marshes thickly studded with lakes and tarns, interspersed with tracts of rolling tundra—in fact a perfect paradise for Waders, Ducks, and Geese. Again, the range of hills running from west to east within ten miles of the head of the bay, and reaching an altitude of 400 or 500 feet, ought to vary the character of the breeding-ground, and, together with the lowlands, provide suitable nesting-spots for many of the arctic species.

The chief line of spring migration to this district is probably up the valley of the Volga; but smaller streams of birds doubtless come from the West of Europe, and a few

stragglers may reach it from the east of the Ural Mountains; so that I hoped to meet with a large variety of species, even to find a pair of Curlew-Sandpipers there!—although I ought to say that this hope was discouraged by all my ornithological friends.

I believe the only Englishmen who have crossed this country are Mr. G. H. Popham, Captain Wiggins, and Mr. F. G. Jackson (of the Jackson-Harmsworth Expedition). They passed over it while the ground was under snow; but it had been visited in summer by Alexander Gustav Schrenk in 1837, as well as by Herr Keyserling, who published an account of his journey in ‘*Reise in das Petschora-Land*’ (St. Petersburg), 1846. Both of them examined the botany of the district very carefully, but gave few details respecting ornithology.

Sledging appeared impossible in summer-time, considering the large amount of food and collecting-outfit which would be necessary, so the sea-route was chosen. Both English and Russian charts gave very scanty information; but, from the few soundings marked on them, it seemed that a ship of light draught could approach the land sufficiently to enable us to reach the rivers in a steam-launch. I therefore chartered the ss. ‘*Laura*’ from Herr Giæver, of Tromsø, and Colonel H. W. Feilden and Mr. Frederick Curtis accompanied me. The ship proved very suitable for our purpose in most respects, her chief fault being a slight deficiency in steam-power; but it is difficult to combine this with good sailing qualities in a wooden vessel, and for cruising in these seas high speed is not essential.

After many delays we finally left the North Cape, Norway, on June 20th, ten days later than we had intended; and, owing to constant head-winds, Kolguev was sighted only on the 25th; in fact, during the first two months of our voyage we were able to sail without steam for three hours! We expected to meet the ice at Kolguev, but none being seen as we advanced to the east of the island, and the temperature continuing high—June 27th, 8 A.M., thermometer in shade 50°, surface water of sea 50° Fahr.—we began to

hope we should reach our goal at once without obstruction : hopes, alas ! destined to be soon destroyed, for the ice appeared four hours later, the ship being then north of the Petchora. We coasted down the edge of the ice to the west, but found the whole coast closely packed for some distance beyond the mouth of that river, and extending seaward as far as the ten-fathom line, a distance of twenty to thirty miles. As there is no safe anchorage on this coast, we dared not attempt to push through the pack to shore, and were therefore obliged to return along the edge of the ice to the north-east. Fog caused considerable delay, but early on the 29th it lifted a little and enabled us to see some islands ahead. These proved to be off the north-west corner of Waigats in the Kara Straits, and we decided to get through the ice into Dolga Bay if possible. After some trouble we succeeded in doing this, and found a very good anchorage near a small island on the east side—the only place where a ship is fairly safe from ice in the whole bay. Our steam-launch, which was too large to take on board and so had to be towed after us, was exposed to many vicissitudes, for she was often dragged over the ice, and would have sunk if she had not been well covered with painted canvas.

As we now knew that owing to the state of the ice we could not reach our original goal for some time, we decided to spend the interval in working Waigats, and eighteen days were passed at Dolga Bay, Cape Greben, and Cape Matinsela, very pleasantly. During this time we saw or shot examples of thirty-three species of birds ; among these the Wheatear, Rough-legged Buzzard, Ruff, Temminck's Stint, and Goosander were recorded from there for the first time. We also obtained eggs of thirteen species. We next visited the country round Habarova on the mainland, where a Merlin was seen and a White Wagtail shot.

At last, on July 19th, both wind and ice appeared favourable for an attempt to reach Khapidirsh Bay, so we left Habarova at noon and steamed down the coast ; at first keeping it some six miles off, but the shoal-water obliged us

to increase our distance off shore. As we advanced the depth decreased to eight and six fathoms, the soundings indicating a surface like the rolling tundra on the adjacent shore, and the lead bringing up the same dark greenish mud which forms the bulk of the surface on land. At 11.30 P.M. the depth was five fathoms, and directly after $4\frac{1}{2}$! At this time we were ten miles distant from Bylkoviky Noss, fifteen from Selenetz Island, forty from Khapidira River, and twenty from the Karataikha River. The chart showed six fathoms at a point twenty miles nearer the Khapidira River than that we had reached. It was quite plain the ship could be taken no further; neither could she remain where she was, if any sign of change of wind appeared, for there was no anchorage nearer than Cape Greben, forty miles off.

The Russians at Habarova could give us no certain information about the depth of the sea, or that the launch, drawing three feet, could enter the Karataikha River—although they thought it possible; so it appeared more than rash to attempt a voyage in the launch, occupying eight hours under favourable circumstances, and with considerable probability of finding the ship gone on our return. The water generally proved to be much shallower than marked on the charts; but as the Russians report this to be one of the most favourable ice-years within the memory of man, information as to its depth can seldom be of any service! We were unable also to travel overland from Habarova, as all the reindeer had been sent some distance into the country to the hills to avoid the mosquitoes and flies; and we were therefore obliged, most reluctantly, to abandon the chief object of our expedition.

The next day we succeeded in landing on the island of Dolgoi, a place very rarely visited by civilized men, and only inhabited by two Samoyeds during part of the year. Unfortunately it was only possible to remain on shore seven hours, as the wind then obliged us to leave and seek deeper water off Waigats; but, as we landed near the centre of the island, and it all appeared of a similar character, we think the twenty species of birds seen or shot fairly exhaust

the list to be obtained there. The island runs from north-west to south-east, and is formed by a long narrow reef of rock which looks like old limestone, and is tilted to an angle of 45° or 50° from north-east (lowest) to south-west. Except in one or two places the rock was all covered with rolling tundra of a more mossy nature than that on Waigats, and thickly studded with lakes of all sizes, from some 700 yards across to little tarns. It formed, therefore, a perfect breeding-place for Divers, and both the Black- and Red-throated species were more plentiful than we have ever seen them before. A list of the various birds observed is given on p. 208. We were fortunate in getting away at the time we did, for it would have been impossible to leave the shore half an hour later, and an hour after our departure the sea was seen to be breaking two fathoms deep a mile from the shore. The changes of weather in these latitudes are very rapid, and fully justified the anxiety our good Captain Kjeldsen so often expressed for what he described as a "good anchorage."

Having thus been obliged to give up our original plans, and the season being so far advanced, we decided to proceed to Novaya Zemlya, and arrived at Belootchia Bay on the south-west coast, July 22nd, a place visited by us in 1895. During a trip up the river "Saxon," which runs into the head of the bay, we came across several parties of young and moulting Geese, out of which we shot thirty-six, a slaughter not so unnecessary as it may appear, for all of us had been living on tinned meats for a month, and absolutely required fresh food. Young White-fronted or Bean Geese roasted, and larded with a little bacon, not only afford a pleasant change in the north, but would be welcomed at table at home.

From Belootchia Bay we steamed up the west coast to Matotschin Scharr, and anchored in Cairn Bay at the west entrance to the Straits. On shore here I saw a Stint, but the light was too bad to determine whether a Temminck's or Little Stint, and a Samoyed dog, which persisted in giving me the pleasure of its company, prevented my getting a

shot. A colony of Samoyeds have been settled here three years, and have several wooden houses—one of these being most comfortable, well built, and lined inside with planed boards. Last year they had sold to the Russians 115 deer and 39 ice-bear skins.

All the best points on Novaya Zemlya for shooting bears and reindeer are occupied by these people; and last year one or two parties had gone north to winter on the west coast of the North Island or Lutkë Land, so that it is scarcely necessary to explain how very slight the chances of sport in this country now are. The men told us the ice left the coast last year in May, and they believed the Scharr was then open also.

From Cairn Bay we proceeded through the Scharr to its east entrance, where we anchored in Seal Bay, a very safe place, and the best anchorage found during our voyage; it is formed by a small inlet on the east side of Belushja Bay. We spent nine days in working the surrounding country on both sides of the Straits, and found birds to be much scarcer here than on the west coast.

As we could see no ice on the Kara Sea from the hills ascended, we steamed up the east coast of Lutkë Land on the 6th of August, and reached Pachtussoff Island, lat. $74^{\circ} 24'$. Here the sea was absolutely clear of sea-ice as far as could be seen from an elevation of 130 feet, and no ice-blink was visible; in fact it was the most wonderful year for open water on this east coast I can find recorded since the sixteenth century. Unfortunately the constant headwinds had nearly exhausted our coal, so that we were unable to avail ourselves of such a favourable opportunity to explore the coast further north, respecting which very little is known.

Returning down the coast we spent a day in Bear Bay, and then steamed through the Scharr to Nameless Bay. This bay and its wonderful wealth of bird-life have been fully described by Admiral Markham in his "Voyage of the 'Isbjörn'" (see 'A Polar Reconnaissance,' pp. 150-153). Still no description can do full justice to the scene, which

must be visited to be realized. The Brünnich's Guillemots were very tame, and sat for their portraits at a distance of five feet! With such a larder close to them the Glaucous Gulls thrived and were very numerous. Most of the young could fly—August 11th—but three were secured as companions to one brought back in 1895, and have not only thrived well since their arrival, but also take the lead over the older birds, both Glaucous and Greater Black-backs.

We started for Vardö on the 12th August, and, as the wind at last was more favourable, we reached that port on the 16th and Tromsö on the 20th, where the 'Laura' was left. On reaching Tromsö there was not enough coal left to last three days, showing that further exploration would have been impossible.

Our voyage of eleven weeks was to some extent a failure, but a pleasant one, and so far of use that it has shown clearly the impracticability of reaching the north-east Russian coast from the sea. It is to be hoped that some English ornithologist will shortly make the attempt from the land-side, as I feel sure there is much good work to be done and satisfactory results obtained in that district.

1. SAXICOLA CENANTHE.

The Wheatear was one of the five species we added to the list of birds for Waigats. It was first recorded near Dolga Bay, July 8th, when two were seen and a female shot. While we were preparing to photograph four young Buzzards in their nest there, a Wheatear hovered over them for some seconds, apparently much interested. Several birds were also seen at Cape Matinsela on the east coast on July 18th; the one shot for identification was another female.

2. MOTACILLA ALBA.

A male of the White Wagtail was shot at Habarova, July 17th, and another seen there the same afternoon. Messrs. Harvie-Brown and Seebohm did not meet with this bird north of lat. 68°, and, Habarova being in 69° 40', the above forms a considerable extension of the range of the bird in Europe. The place was thoroughly adapted for its

summer residence, for neither Russians nor Samoyeds (nor their dogs) are very scrupulous in sanitary matters, and consequently flies of many kinds were numerous. We did *not* take in water at Habarova, and advise future visitors to these regions to select sources of supply at some distance from human habitations.

3. ANTHUS CERVINUS.

Waigats is a thoroughly suitable country for the Red-throated Pipit, and the birds were fairly numerous in all the parts visited. Nine clutches of eggs were taken between July 3rd and 11th, most of them much incubated. Two of these clutches, found on the 8th a mile apart, raised the old question as to whether the bird knows the colour of her eggs and selects a suitable locality, or colours her eggs to suit the locality. The first clutch was in a marsh and placed high up among the grass, so that both the nest and eggs were very open to observation, in my experience a most unusual position for this bird to select. The eggs harmonized perfectly with the dead grass which surrounded them, and are the lightest-coloured clutch I have. The next clutch (four) was in a vertical hole six inches deep and only just large enough to admit the bird; it is the deepest-coloured set taken during two seasons. The nest of this species is usually placed in the side of a hummock in swampy ground and well concealed, so that both nests were a departure from the ordinary habits of the bird. These Pipits were numerous on Dolgoi Island; both old and young were shot there.

4. LINOTA LINARIA.

We found a nest of the Mealy Redpoll with three eggs (fresh) near Habarova on July 14th and shot the male. The nest was a beautiful little structure placed in a dwarf sallow. Several Linnets were seen in Waigats, but we could never obtain a specimen. Mr. Jackson also mentions having shot three there ('The Great Frozen Land,' p. 34), describing them only as Linnets. There is little doubt, therefore, that this species crosses the Yugor Straits to Waigats, and may be added to the list of birds found there.

5. *CALCARIUS LAPPONICUS.*

Lapland Buntings were somewhat local and nowhere numerous on Waigats, no doubt owing to the unsuitableness of the country. They were most plentiful on the west side of Dolga Bay, where the tundra resembled that of Kolguev. A few were seen near Cape Greben in the south of the island, and a young one, fully fledged, shot on July 15th. We saw twenty or thirty on Dolgoi Island during our short stay. None were observed in any part of Novaya Zemlya this year, but it is possible they had left before our arrival; we met with them there in 1895.

6. *PLECTROPHENAX NIVALIS.*

The Snow-Bunting was certainly the commonest land-bird wherever we went. Several nests were in such unusual positions that they may be worth recording. On July 2nd we found a deserted nest, containing five eggs, placed on a flat stone in the dry bed of a stream; on the same stone were the remains of an older nest. Ten yards higher up were two more old nests touching each other, and evidently made in successive years. The streams of Waigats become large torrents when the snow melts in spring, but shrink to little rivulets in summer, with broad dry beds of shingle and mud. All these nests were in the centre of the shingle and totally unprotected. There were plenty of crevices among the rocks in the vicinity which the birds might have occupied. On July 3rd we found another nest by a stream, placed on the top of a detached pinnacle of mud which projected from the bank. It contained two young birds ready to fly and an addled egg. Within fifty yards were great screes affording unlimited and well-secreted nesting-places; therefore all these positions were matters of choice, not necessity. On our first landing on Waigats (June 29th) some young birds were on the wing, so that few nests with eggs were taken. The number of mosquitoes these birds destroy must be very great; we saw them all day long with great bunches of these insects in their beaks. Fortunately for us, the weather was generally cool enough to keep the mosquitoes in the shelter of

the grass, and the Snow-Buntings ran through it in all directions like mice, far too busy collecting the little wretches to trouble about our watching them.

7. *OTOCORYS ALPESTRIS*. Shore Lark.

This species was plentiful wherever we landed on Waigats and also on Dolgoi Island. It is an early breeder, as many young were flying on our arrival. Four nests were taken (with five, five, three, and four eggs respectively) between June 30th and July 11th. Last season's observations confirm the idea that occasionally this bird breeds twice. The positions of the nests were similar to those we found on Kolguev and of the same materials (Ibis, 1896, p. 215).

8. *NYCTEA SCANDIACA*. Snowy Owl.

Unfortunately these birds are large enough to form an article of food, and therefore suffer from the increase of the Samoyed population; we found their wings, &c., on the sites of old camps on several occasions. Having tried before without success to obtain the eggs, we were determined last year to get them if possible, and never left a likely spot unvisited; but all to no purpose, no nest being found which showed signs of having been used last season. The cause of this was no doubt the fact it was a bad year for lemmings throughout the whole of the countries visited; we only saw two lemmings in two months. In the Gubina Valley, on the south side of Matotschin Scharr, were eight old nests of the Snowy Owl of various ages, all placed on the tops of mounds, the sides of which were full of lemming-holes—in fact, homes comfortably placed over a living larder! The interior of the later nests had no lining except a quantity of jaw-bones and other remains of the lemming. A dead bird of this species was picked up on Dolgoi Island.

9. *ARCHIBUTEO LAGOPUS*.

The Rough-legged Buzzard was another of the birds added to the list for Waigats. We first found a pair on June 29th breeding in a range of hills near Dolga Bay. The nest was placed about twenty feet from the top of the cliff and was made entirely of grass; it contained three young in down

and a headless young Snow-Bunting. We secured the male Buzzard and young. Another nest was found on a cliff of the coast near our anchorage in Dolga Bay, containing two eggs which had been deserted last year. The third nest was also near Dolga Bay, and was picturesquely placed on a detached pinnae of rock projecting from the side of a hill. It contained four young in down, two of which were taken on board alive, and at once became the pets of the crew. Their rapid growth was very interesting to watch. As soon as they were feathered they chose the roof of the engine-house for their favourite perch, from which they had a good view of the various countries they visited. Both birds are now in the Zoological Society's Gardens, Regent's Park.

10. HALIAËTUS ALBICILLA.

A White-tailed Eagle was seen, but not shot, near Dolga Bay, Waigats. Incidentally I may remark that this bird is still far from extinct in Norway. While stopping at Skaarö—an island near Tromsö, where Herr Giæver has a whaling establishment—to take in coals for our voyage, we were told by the butcher that he counted thirty of these birds sitting on one of the sheds at 5.30 one morning in the spring of last year. The large amount of food here attracts great numbers of birds, and I have counted seventy Ravens on the hillside near. The place is left in the winter with only an old man in charge, during which time the birds are unmolested; but the butcher, who returns each spring, has a rifle and can use it. From what I saw one day when waiting to get photographs of the Gulls, &c., I feel sure he was personally known to them, for while they took little notice of me and most of the men about the works, they left for another island directly he appeared, although he had no gun at the time.

11. FALCO PEREGRINUS.

Coming on deck two hours after our arrival in Dolga Bay on June 29th, we were told by Captain Kjeldsen he had found a "Hawk's" nest on the island close to our anchorage. We landed at once to investigate, and found the nest to be that

of a Peregrine. It was placed on a projecting ledge of the cliff-face some forty feet above the sea, and was constructed chiefly of sticks, which must have cost the birds some trouble to collect, as nothing grows on this island capable of producing a stick except a dwarf species of willow, and that only at rare intervals. We took the three well-coloured eggs after photographing them *in situ*, and shot the male bird. It was well we secured the eggs then, for on visiting the spot again two days later the whole piece of cliff on which the nest was placed had fallen into the sea.

The next time we met with this species was on July 18th at Cape Matinsela, on the east coast of the island. The nest was on the spur of the sandhills running out towards the shore; it consisted of a little grass only, and contained three young in down. The female was shot. On August 10th we were fortunate in finding this bird breeding on the cliffs of Silver Bay, Lutkë Land, the first record of it on the North Island. There were the two old birds and four young; two of the latter flew on our approach, and the others remained sitting on a ledge of the slate rock composing the cliff. The nest was placed in a recess of the cliff, some 100 feet high at that part. Théel has struck this bird out of his list for all three islands, but this is evidently incorrect. While lying-to in a fog off Nameless Bay on the west coast of Novaya Zemlya, I had written that, as we found the bird both on Lutkë Land and Waigats, it would probably be recorded from Novaya Zemlya; and three hours after we were able to complete the record of this bird for all three islands, by finding a pair with young. They had bred in a ravine cut through the slate rock 200 feet deep, and at the bottom of which a river ran into the south side of Nameless Bay. On further reference I find Pelzeln records this bird from the South Island.

12. FALCO ÆSALON.

A Merlin was seen near Habarova on July 17th, but unfortunately we were unable to secure it. The remarks on the extension of range of the White Wagtail apply to this species

also, for it has previously been recorded only by Messrs. Harvie-Brown and Seeböhm in lat. 68°.

13. ANSER SEGETUM. Bean-Goose.

Although none of these birds were shot on Waigats, we saw one flock well through our glasses, and identified them as Bean-Geese. As mentioned above, we shot nine of this species in Belotchia Bay; the longest measured 31 inches from tip of beak to end of tail, and the shortest 27. We also shot eight Bean-Geese on Lutkë Land, near Belushja Bay; and from our observations generally, we think the majority of the Geese visiting these islands are of this and the following species. A flock of seventy to a hundred "Grey" Geese were seen at Bear Bay; in fact, they were numerous in most places where the Samoyeds had not yet settled. It was strange we never saw Brent Geese either in 1895 or 1897, as they have been recorded by almost all previous visitors.

14. ANSER ALBIFRONS.

Twenty-seven White-fronted Geese were shot in Belotchia Bay on July 23rd. The longest was 28 inches, and the shortest 25 inches. In all cases the species were in separate flocks. Five of these birds were seen on July 28th in Belushja Bay, which appears to be a favourite breeding-place for Geese, and to be rarely disturbed by the Samoyeds, as yet, at that season; but I have no doubt they will shortly establish hunting-stations up the east coast. We found long strings of the upper mandibles of both the above species in their houses, made into playthings for their children.

15. CYGNUS BEWICKI.

Eight Bewick's Swans passed within a hundred yards at Dolga Bay, July 3rd. None were seen this year on Novaya Zemlya.

16. HARELDA GLACIALIS.

Long-tailed Ducks were very numerous on Waigats and Novaya Zemlya. On Dolgoi Island we secured a female

and young in down ; and a few birds were shot on Lutkë Land.

17. *SOMATERIA MOLLISSIMA*.

The Common Eider was the only one we found breeding on Waigats and Novaya Zemlya. Though not protected, as it is in Norway, it is still fairly plentiful on these islands.

18. *SOMATERIA SPECTABILIS*.

We again failed to secure authentic eggs of the King-Eider ; a young bird in down and its mother were, however, shot on Dolgoi Island on July 20th.

Ivan Alexandrovitch Koshevin, the principal Russian merchant in Habarova, told us that the King-Eider bred on Dolgoi, and the Common Eider on Waigats. The information he gave us about all the larger birds was very correct ; and he pointed out at once, on the drawings shown him, the difference between the various Swans and Geese. We shot three females in Belushja Bay, July 28th, and saw a flock of between 500 and 600 Eiders on Ziwolka Bay behind Pachtussoff Island, lat. $74^{\circ} 24'$, on Aug. 6th, which we thought belonged to this species. They flew over us several times, but not within range.

19. *MERGUS MERGANSER*.

We shot two Goosanders at Cape Matinsela, Waigats, on July 18th, and were thus able to add this bird to the list for the island. We were specially glad to secure them, as we had recorded this species on Novaya Zemlya in 1895 from observation only, and the capture on Waigats confirms this opinion to some extent. It has not been previously found in any of the three islands.

20. *MERGUS SERRATOR*.

Several Red-breasted Mergansers were seen on Waigats, also near Habarova ; we only succeeded in bringing them to bag near Belushja Bay.

21. *CHARADRIUS PLUVIALIS*.

Five Golden Plovers were seen near Dolga Bay, Waigats, on July 2nd, and several more near Cape Greben, July 11th ; none were shot.

22. *SQUATAROLA HELVETICA.*

Soon after landing on Dolgoi Island we saw some Grey Plovers in the distance, and there they (or rather we) remained, in spite of all our efforts to come to closer quarters. We watched several pairs for two hours, and came to the conclusion that all the young could fly. Two hatched-out eggshells were picked up. As this was on July 20th, and eggs were taken up to July 13th, in 1895, on Kolguev, the early season had evidently affected these birds. The young seen on the wing were quite as wild as their parents.

23. *ÆGIALITIS HIATICULA.*

Ringed Plovers were plentiful on Waigats, Habarova, Dolgoi, Novaya Zemlya, and the most northern point reached of Lutkë Land, in places that afforded suitable breeding-ground; but we were generally too late for eggs, and the only ones taken were at Dolga Bay, on the 2nd and 8th of July.

24. *EUDROMIAS MORINELLUS.*

Dotterel were common on both the north and south ends of Waigats; many of the birds did not appear to be breeding, and only four clutches (all of three eggs each) were taken—the first being found on June 29th and the last on July 18th. Several families of young in down were also secured. One female was shot from the nest, but three adults shot with the young were males. Some of these handsome birds were obtained on Dolgoi Island, and a few seen at Habarova. None were observed last year on Novaya Zemlya, although we passed over the same country where their eggs had been taken in 1895.

25. *STREPSILAS INTERPRES.*

The Turnstone was one of those birds we were surprised not to find on Waigats, as the country appeared so suitable for it; and we had already recorded it from Novaya Zemlya in 1895. Several pairs were seen on Dolgoi Island, and both old and young shot there. One was also shot near Habarova, July 16th.

26. PHALAROPUS HYPERBOREUS.

Red-necked Phalaropes were common on all the marshes of Waigats. Three clutches of eggs—four, three, and four respectively—were found between June 30th and July 5th ; all in wet positions, and in one case I stood in nine inches of water to photograph the eggs, the nest being in coarse grass over the water. Several young in down were also secured. The only bird shot from the nest proved to be a male. The species was common on Dolgoi Island.

27. TRINGA ALPINA.

Dunlins were sparsely but evenly distributed over all the parts of Waigats we visited, and generally had young ; a clutch of four eggs, half incubated, was taken on July 8th.

A bird of the year was shot at Habarova, July 17th ; and several pairs of old birds were seen on Dolgoi Island during our short visit there.

This species is not at all gregarious during the breeding-season ; even in Iceland, to which thousands resort every summer, we rarely found more than one pair in a marsh.

28. TRINGA MINUTA.

It would be far easier to write a paper than a paragraph on the Little Stint, so charming is this bird in all its ways, and so entirely without fear of man. Little Stints were the commonest species on Waigats after the Snow-Bunting, and especially numerous at the heads of Dolga Bay and other inlets of the sea ; but they did not confine themselves to the neighbourhood of the shore, a number breeding round the lakes, two to three miles inland. They were also nesting near Habarova, on Dolgoi Island, and at Belootchia Bay, Novaya Zemlya. At the last place, on our showing some young ones to Taitiana, our Samoyed hostess of 1895, she explained that the Samoyed dogs eat most of the young of this and other species before they can fly. There are generally forty to sixty dogs at a camp ; and as the poor brutes are often half starved, they range over the country for miles, clearing off everything, from Little Stints upwards.

So that practically the sufferers from our egg-collecting were the dogs and not the Stints!

We found large numbers of nests at many of the places visited, and took 183 eggs, all of which were fertile: a fact worth recording. A series of photographs of the nests were taken, the camera being placed vertically over them. In two instances the bird came back and sat on her eggs to be photographed; it appeared to wonder what the large black cloth and other paraphernalia (including the operator) were for, but showed no signs of real fear.

As in the case of *Anthus cervinus*, the question of assimilated coloration was very interesting. Nine nests were found one day in an hour, five on a shingle-bar, composed chiefly of water-worn fragments of slate and covered in places with a little dried yellow-grey grass; and four—not a hundred yards distant—were among richly-tinted green and brown moss, sparsely covered with bright green grass. The five placed among the dead grass were all of a grey tone of colour with small spots; while the four in the moss were among the most richly coloured and blotched clutches we took last year. It is now generally accepted that females among the higher types of domestic animals are largely influenced by the animals they see when pregnant; but the orthodox view is that birds know the future colour of their eggs, and select a nesting-site to correspond. These and other instances lead me to the belief that the bird is in some cases influenced by her surroundings.

29. TRINGA TEMMINCKI.

Temminck's Stint was the fourth species added to the Waigats list. We first met with it on July 6th at the north end of the island, where the adult male was shot and four young in down were secured. We also found both parents and four young in the south of Waigats, and were packing the latter away in the knapsack when three juvenile Stints, more advanced, were secured near by. As the latter showed great anxiety to depart, the museum labels were attached to their legs first; in spite of which one wandered off seven or

eight feet, when the old Stint at once came and covered it, but with many an anxious look both at the projecting label and at us. The occurrence was the more extraordinary because this species is usually much wilder than the Little Stint, even when it has young. At Habarova we again found an old bird with four young; but the species is rare in these countries, as only six or eight were seen during the whole journey.

30. *TRINGA STRIATA*.

The Purple Sandpiper was observed at all the places visited except Dolgoi Island; and no doubt with a more extended search we should have met with it there also. Young in down were obtained on Waigats, July 6th, 11th, and 15th, and a nest of four eggs at Cape Greben on July 11th. The latter was on a knoll of black peat partly covered with white lichen, and was lined with dead leaves of a dwarf willow.

31. *MACHETES PUGNAX*.

We shot a Reeve the first day we landed on Waigats, and afterwards saw a number of both Ruffs and Reeves; but we found only two nests: the first, on June 30th, containing only one egg, and the second, on July 4th, three. A young bird in down was obtained at Habarova, July 14th. Some Reeves were also shot on Dolgoi Island, July 20th. The above is the first record of this bird in Waigats.

32. *STERNA MACRURA*.

The only occasion on which we met with the Arctic Tern on land last year was at Pachtussoff Island, on the east coast of Lutkë Land, where a small colony had young, just able to fly, August 6th. They had nested on a bar of shingle under the shelter of the island.

33. *PAGOPHILA EBURNEA*.

The Ivory Gull also was met with only on the east coast of Lutkë Land. It was plentiful in Bear Bay, August 8th; and more than forty quickly collected on an ice-floe where our men had killed a seal. Two of those shot had large incubation-spots, so it is probable they had bred this year in the neighbourhood. Both birds were males.

34. *RISSA TRIDACTYLA*.

The Kittiwake was common on all the bird-rocks of Novaya Zemlya. We found no breeding-places of this species nor of Brünnich's Guillemot on Waigats.

35. *LARUS GLAUCUS*.

A few scattered pairs of Glaucous Gulls breed on Waigats, and we secured a whole family of father, mother, and three young on an island in Dolga Bay for the British Museum. We also found the species at Habarova, on Dolgoi Island, and on Lutkë Land, but the total number seen at all these places did not equal those at Nameless Bay. Admiral Markham noticed that the Glaucous Gull did not hatch all three eggs; but this may have been the result of an unfavourable season, for we met with three cases in which there could be no doubt the brood consisted of three young.

36. *LARUS AFFINIS*.

Black-mantled Gulls were observed on Waigats, Dolgoi, Novaya Zemlya, and at Habarova, but none were shot last year. The bird shot on Kolguev in 1895 was the Siberian River-Gull; and I quite agree with Dresser's views ('Birds of Europe,' vol. viii. p. 418) respecting Heuglin's list. Until more definite proof is forthcoming of the presence of *L. marinus* and *L. fuscus* in these waters it will be safer to exclude them from the list.

37. *STERCORARIUS POMATORHINUS*.

We saw Pomatorhine Skuas on Waigats, Novaya Zemlya, and Lutkë Land, but no indication that they were breeding.

38. *STERCORARIUS CREPIDATUS*.

Two Richardson's Skuas were shot on Dolgoi and one at Habarova; all were of the white-breasted variety, two being females and one male. The male was shot on Dolgoi while endeavouring to protect its young in down, and had mated with a black female; the latter kept out of range.

39. *STERCORARIUS PARASITICUS*.

Buffon's Skuas were seen on Waigats and Habarova, but no nests obtained. Skuas of all three kinds were again very

numerous over Barents Sea last year, and were constantly about the ship until we sighted the Norwegian coast.

40. *FULMARS GLACIALIS.*

Fulmars were only seen at sea off the coasts of Novaya Zemlya and Lutkë Land.

41. *COLYMBUS ADAMSI.*

The only Yellow-billed Diver we saw last year with certainty was in Nameless Bay, and there can be no reasonable doubt about the bird observed in 1895. Previous writers have referred the birds seen to *C. glacialis*, so that further information will be interesting.

42. *COLYMBUS ARCTICUS.*

Black-throated Divers were observed on both the north and south of Waigats, and one nest of two eggs was obtained June 30th. The bird was common on Dolgoi.

43. *COLYMBUS SEPTENTRIONALIS.*

A Red-throated Diver and two young in down were shot on Waigats, July 15th; also at Belushja Bay, July 28th. In both instances it was the male bird that stayed to take care of the young, the female keeping at a safe distance. Two pairs of these birds were seen on Pachtussoff Island, August 6th, but no sign of nest or young.

44. *LOMVIA BRUENNICHI.*

We found the Brünnich Guillemot breeding only on the west coast of Novaya Zemlya, doubtless owing to the fact that the sea on the east side is so rarely free from ice.

45. *URIA MANDTI.*

Mandt's Black Guillemots were shot in Dolga Bay and on Pachtussoff Island. A bird of the year was seen in Nameless Bay, August 12th.

In treating of the birds of Waigats, Novaya Zemlya, and Lutkë Land, previous writers have always combined them in one list, with only occasional notes as to the island on which certain species were obtained; so that it is very difficult in most cases to determine the exact locality, and I trust, therefore, that any errors in the following lists may be forgiven. I have always inserted the bird in the division

most probable from the context, rather than omit the record entirely.

The three islands are 660 miles in total length, extending from lat. 69°40' to lat. 77°, and vary greatly in their climatic conditions; their avifauna should therefore, I think, be treated separately.

Referring to Th. von Heuglin's article in 'The Ibis,' 1872, pp. 60-65, we have no proof yet that *Falco gyrfalco* visits any of these islands, and I am inclined to refer all accounts of this bird to *Falco peregrinus*. No species of Grouse (*Lagopus*) has yet been shot here; if present, they would probably be found on Waigats, but we saw no trace of them there or on the more northern lands. The excrement of this bird resists the action of the weather a long time, so that we could scarcely have failed to observe it. As stated above, I believe *Larus affinis* is the only dark-mantled Gull on these islands; and also that *Colymbus adamsi* (not *C. glacialis*) is the large Diver to be found here.

In the following lists the abbreviations are:—

- B. Von Baer.
- G. George Gillett, Ibis, 1870, p. 303.
- H. Th. von Heuglin, Ibis, 1872, p. 60.
- Pelz. Von Pelzeln.
- Th. Dr. Hjalmar Théel, Ann. Sci. Nat., Sér. Zool. tome iv. art. 6.
- M. Admiral Markham, 'A Polar Reconnaissance.'
- P. Pearson and Feilden.

List of the Birds of Waigats.

1. Saxicola oenanthe .....	..	..	P.
2. Anthus cervinus	H.	Th.	P.
3. Linota linaria (?).....	..	..	P.
4. Calcaeus lapponicus .....	..	Th.	P.
5. Plectrophenax nivalis.....	H.	Th.	P.
6. Otocorys alpestris	H.	Th.	P.
7. Nyctea scandiaca	H.	..	P.
8. Archibuteo lagopus .....	..	..	P.
9. Haliaëtus albicilla .....	..	Th.	P.
10. Falco peregrinus.....	..	..	P.
11. Anser segetum .....	..	..	P.
12. Cygnus bewicki .....	..	..	P.
13. Mareca penelope.....	H.	..	..
14. Harelda glacialis.....	H.	Th.	P.
15. Somateria mollissima	H.	..	P.
16. Oedemia nigra.....	H.	..	P.

Birds of Waigats (continued).

17. <i>Edemia fusca</i>	H.		
18. <i>Mergus merganser</i> .....	..	..	P.
19. — <i>serrator</i>	H.	..	P.
20. <i>Charadrius pluvialis</i>	H.	Th.	P.
21. <i>Ægialitis hiaticula</i>	H.	..	P.
22. <i>Eudromias morinellus</i> .....	..	Th.	P.
23. <i>Phalaropus hyperboreus</i>	H.	Th.	P.
24. <i>Tringa alpina</i>	H.	Th.	P.
25. — <i>minuta</i>	H.	Th.	P.
26. — <i>temmincki</i> .....	..	..	P.
27. — <i>striata</i>	H.	Th.	P.
28. <i>Machetes pugnax</i> .....	..	..	P.
29. <i>Calidris arenaria</i>	H.		
30. <i>Sterna macrura</i> .....	..	Th.	..
31. <i>Larus glaucus</i>	H.	Th.	P.
32. — <i>affinis</i> ?	H.	Th.	P.
33. <i>Stercorarius pomatorhinus</i>	H.	..	P.
34. — <i>parasiticus</i> .....	..	Th.	P.
35. <i>Colymbus glacialis</i> ? (<i>C. adamsi</i> ?)	H.		
36. — <i>arcticus</i>	H.	..	P.
37. — <i>septentrionalis</i> .....	..	..	P.
38. <i>Uria mandti</i> .....	..	Th.	P.

List of the Birds of the South Island of Novaya Zemlya.

1. <i>Anthus cervinus</i> .....	..	..	..	..	..	P.
2. <i>Calcarius lapponicus</i> .....	..	..	..	..	..	P.
3. <i>Plectrophenax nivalis</i>	B.	H.	Pelz.	Th.	M.	P.
4. <i>Otocorys alpestris</i> .....	..	H.	..	Th.	M.	P.
5. <i>Nyctea scandiaca</i>	B.	..	Pelz.	Th.	M.	P.
6. <i>Haliaëtus albicilla</i>	B.	..	..	..	..	P.
7. <i>Falco peregrinus</i> .....	..	..	Pelz.	..	..	P.
8. <i>Anser segetum</i>	B.	H.	..	Th.	M.	P.
9. — <i>albifrons</i> .....	..	..	..	..	..	P.
10. <i>Bernicla brenta</i>	B.	H.	Pelz.	Th.	M.	..
11. <i>Cygnus bewicki</i> .....	..	H.	..	Th.	..	P.
12. <i>Harelda glacialis</i>	B.	H.	Pelz.	Th.	..	P.
13. <i>Somateria mollissima</i>	B.	H.	Pelz.	Th.	..	P.
14. — <i>spectabilis</i>	B.	H.	Pelz.	Th.	M.	P.
15. <i>Edemia nigra</i> .....	..	H.	..	..	..
16. — <i>fusca</i> .....	..	H.	..	..	..
17. <i>Mergus merganser</i> .....	..	..	..	..	..	P.
18. — <i>serrator</i> .....	..	..	..	Th.	M.	P.
19. <i>Ægialitis hiaticula</i> .....	..	H.	..	Th.	..	P.
20. <i>Eudromias morinellus</i> .....	..	..	..	..	..	P.
21. <i>Strepsilas interpres</i>	B.	..	..	Th.	..	P.
22. <i>Tringa alpina</i> .....	..	..	Pelz.	Th.	..	
23. — <i>minuta</i> .....	..	H.	..	Th.	..	P.
24. — <i>striata</i>	B.	H.	..	Th.	M.	P.
25. <i>Sterna macrura</i>	B.	H.	..	Th.	..	P.
26. <i>Pagophila eburnea</i>	B.	H.	Pelz.	Th.	M.	
27. <i>Rissa tridactyla</i>	B.	H.	..	Th.	..	P.

Birds of the South Island of Novaya Zemlya (continued).

28. <i>Larus glaucus</i>	B.	H.	..	Th.	M.	P.
29. — <i>canus</i>	B.	..	..	..	..	..
30. — <i>affinis</i> ? .....	..	..	Pelz.	..	..	P.
31. <i>Stercorarius catarrhactes</i>	B.	..	..	..	..	..
32. — <i>pomatorhinus</i> .....	..	H.	..	..	..	P.
33. — <i>crepidatus</i> .....	..	..	..	Th.	M.	..
34. — <i>parasiticus</i> .....	..	H.	..	Th.	..	P.
35. <i>Fulmarus glacialis</i> .....	..	..	..	Th.	..	P.
36. <i>Colymbus glacialis</i> ? .....	..	..	..	..	M.	..
37. — <i>adamsi</i> .....	..	..	..	..	..	P.
38. — <i>arcticus</i> .....	..	..	..	..	..	P.
39. — <i>septentrionalis</i>	B.	..	Pelz.	Th.	..	P.
40. <i>Lomvia bruennichi</i>	B.	H.	Pelz.	Th.	M.	P.
41. <i>Uria mandti</i>	B.	H.	Pelz.	Th.	M.	P.
42. <i>Mergulus alle</i>	B.	..	Pelz.	Th.	M.	P.
43. <i>Fratercula glacialis</i>	B.	..	Pelz.	Th.	..	..

List of the Birds of the North Island of Novaya Zemlya (Lutkë Land).

1. <i>Hirundo rustica</i>	G.	..	..	..	..	..
2. <i>Plectrophenax nivalis</i>	G.	..	..	H.	M.	P.
3. <i>Otocorys alpestris</i> .....	..	..	..	..	M.	P.
4. <i>Nyctea scandiaca</i>	G.	..	..	H.	M.	P.
5. <i>Falco peregrinus</i>	G.	..	..	..	..	P.
6. <i>Anser segetum</i> .....	..	..	..	..	..	P.
7. — <i>albifrons</i> .....	..	..	..	..	..	P.
8. <i>Bernicla brenta</i>	G.	..	..	..	M.	..
9. <i>Harelda glacialis</i>	G.	..	..	H.	M.	P.
10. <i>Somateria mollissima</i>	G.	..	..	H.	M.	P.
11. — <i>spectabilis</i>	G.	..	..	..	M.	P.
12. <i>Mergus serrator</i> .....	..	..	..	..	..	P.
13. <i>Charadrius pluvialis</i> .....	..	..	..	..	M.	..
14. <i>Ægialitis hiaticula</i>	G.	..	..	H.	M.	P.
15. <i>Eudromias morinellus</i>	G.	..	..	..	..	..
16. <i>Streptilas interpres</i> .....	..	..	..	..	M.	..
17. <i>Tringa striata</i>	G.	..	..	H.	M.	P.
18. <i>Sterna macrura</i>	G.	..	..	H.	M.	P.
19. <i>Pagophila eburnea</i>	G.	..	..	..	M.	P.
20. <i>Rissa tridactyla</i>	G.	..	..	..	M.	..
21. <i>Larus glaucus</i> .....	..	..	..	..	M.	P.
22. <i>Stercorarius pomatorhinus</i>	G.	..	..	H.	M.	P.
23. — <i>crepidatus</i>	G.	..	..	..	M.	..
24. — <i>parasiticus</i>	G.	..	..	H.	M.	..
25. <i>Fulmarus glacialis</i>	G.	..	..	..	M.	P.
26. <i>Colymbus glacialis</i> ? .....	..	..	..	..	M.	..
27. — <i>arcticus</i> .....	..	..	..	..	M.	..
28. — <i>septentrionalis</i> .....	..	..	..	H.	M.	P.
29. <i>Lomvia bruennichi</i>	G.	..	..	..	M.	..
30. <i>Uria mandti</i>	G.	..	..	..	M.	P.
31. <i>Mergulus alle</i>	G.	..	..	..	M.	..
32. <i>Fratercula glacialis</i>	G.

List of the Birds observed on Dolgoi Island, July 20th, 1897.

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|---|--------------------------------------|
| 1. <i>Anthus cervinus</i> . | 11. <i>Strepsilas interpres</i> . |
| 2. <i>Calcarius lapponicus</i> . | 12. <i>Phalaropus hyperboreus</i> . |
| 3. <i>Plectrophenax nivalis</i> . | 13. <i>Tringa alpina</i> . |
| 4. <i>Otocorys alpestris</i> . | 14. — <i>minuta</i> . |
| 5. <i>Nyctea scandiaca</i> (feathers only). | 15. <i>Machetes pugnax</i> . |
| 6. <i>Harelda glacialis</i> . | 16. <i>Larus glaucus</i> . |
| 7. <i>Somateria spectabilis</i> . | 17. — <i>affinis</i> ? |
| 8. <i>Squatarola helvetica</i> . | 18. <i>Stercorarius crepidatus</i> . |
| 9. <i>Ægialitis hiaticula</i> . | 19. <i>Colymbus arcticus</i> . |
| 10. <i>Eudromias morinellus</i> . | 20. — <i>septentrionalis</i> . |

List of the Birds observed at Habarova, July 14th and 18th, 1897.

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|-----------------------------------|--------------------------------------|
| 1. <i>Motacilla alba</i> . | 14. <i>Strepsilas interpres</i> . |
| 2. <i>Anthus cervinus</i> . | 15. <i>Tringa alpina</i> . |
| 3. <i>Linota linaria</i> . | 16. — <i>minuta</i> . |
| 4. <i>Calcarius lapponicus</i> . | 17. — <i>temmincki</i> . |
| 5. <i>Plectrophenax nivalis</i> . | 18. — <i>striata</i> . |
| 6. <i>Otocorys alpestris</i> . | 19. <i>Machetes pugnax</i> . |
| 7. <i>Nyctea scandiaca</i> . | 20. <i>Larus glaucus</i> . |
| 8. <i>Falco æsalon</i> . | 21. — <i>affinis</i> ? |
| 9. <i>Harelda glacialis</i> . | 22. <i>Stercorarius crepidatus</i> . |
| 10. <i>Somateria species</i> ? | 23. — <i>parasiticus</i> . |
| 11. <i>Mergus serrator</i> . | 24. <i>Colymbus arcticus</i> ? |
| 12. <i>Ægialitis hiaticula</i> . | 25. — <i>septentrionalis</i> . |
| 13. <i>Eudromias morinellus</i> . | |

XVII.—*Note on Daphœnositta miranda, De Vis.*

By T. SALVADORI, C.M.Z.S.

(Plate IV.)

MR. SCLATER has kindly sent me for inspection a female specimen of the curious new form *Daphœnositta miranda* of New Guinea (Ibis, 1897, p. 380) which he has received from Mr. De Vis, and has requested me to write a few notes on it, which I have great pleasure in doing.

This bird, of which the present specimen was obtained by Signor Giulianetti on Mount Scratchley, at an altitude of 12,000 feet, on the 1st of October, 1896, belongs to the sub-